

SEQUENCE LISTING



<110> Council of Scientific and Industrial Research

<120> Method for detection of human spinocerebellar ataxia 2
gene variants

<130> US 443

<140> 09/707919

<141> 2000-11-08

<160> 20

<170> PatentIn Ver. 2.1

<210> 1

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer for
amplification of SCA2 gene region containing one
or more polymorphic sites

<220>

<400> 1

ctccgcctca gactgttttg gtag

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<210> 2

<211> 20

<212> DNA

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<223> Description of Artificial Sequence: Primer for
amplification of SCA2 gene region containing one
or more polymorphic sites

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<210> 3

<211> 31

<212> DNA

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<223> Description of Artificial Sequence: Primer for
detection of allelic variants of SCA2 gene

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31

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Allele
specific primer for detection of allelic variants
of SCA2 gene

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31

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<212> DNA
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<223> Description of Artificial Sequence: Allele
specific primer for detection of allelic variants
of SCA2 gene

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<211> 32
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Allele
specific primer for detection of allelic variants
of SCA2 gene

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<212> DNA
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of SCA2 gene

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<212> DNA
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<223> Description of Artificial Sequence: Allele
specific probe for detection of allelic variants
of SCA2 gene

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<210> 9
<211> 27
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Allele specific
probe for detection of allelic variants of SCA2
gen

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<223> Description of Artificial Sequence: Allele specific
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27

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<212> DNA
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<210> 12
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<212> DNA
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<223> Description of Artificial Sequence: Allele specific
probe for detection of allelic variants of SCA2
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<210> 13
<211> 459
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Description of
Artificial derived nucleotide sequence of allelic
variant of SCA2 gene

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cgccagcccg ggcgccctc cgccgcgcc aaccgcgcc tcccgcctcg gcggccgcgc 180
gtcccgcgc cgttcggcg tctccttggc gcggccggt cccggtgtc ccgcccggc 240
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<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Flanking sequence Human ataxin-2 gene

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<210> 15
<211> 169
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Flanking sequence Human ataxin-2 gene

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gtccccgccc ggcgtgag cgggtgtatg ggccccctcac catgtcgct 169

<210> 16
<211> 183
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Flanking sequence Human ataxin-2 gene

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tctagcgtcg cccgcgcgcg cgccttcgcc gtctctgtcc tcggtctcct cgtcctcggc 180
cac 183

<210> 17
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<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Flanking sequence Human ataxin-2 gene

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<210> 18
<211> 98
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Flanking sequence Human ataxin-2 gene

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<210> 19
<211> 1312
<212> PRT
<213> Homo sapiens

<400> 19

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Arg Pro Ala Arg Arg Ser Gly Arg Gly Gly Gly Gly Ala Ala Pro Gly
35 40 45

Pro Tyr Pro Ser Ala Ala Pro Pro Pro Pro Gly Pro Gly Pro Pro Pro
 50 55 60

Ser Arg Gln Ser Ser Pro Pro Ser Ala Ser Asp Cys Phe Gly Ser Asn
 65 70 75 80

Gly Asn Gly Gly Gly Ala Phe Arg Pro Gly Ser Arg Arg Leu Leu Gly
 85 90 95

Leu Gly Gly Pro Pro Arg Pro Phe Val Val Val Leu Leu Pro Leu Ala
 100 105 110

Ser Pro Gly Ala Pro Pro Ala Ala Pro Thr Arg Ala Ser Pro Leu Gly
 115 120 125

Ala Arg Ala Ser Pro Pro Arg Ser Gly Val Ser Leu Ala Arg Pro Ala
 130 135 140

Pro Gly Cys Pro Arg Pro Ala Cys Glu Pro Val Tyr Gly Pro Leu Thr
 145 150 155 160

Met Ser Leu Lys Pro Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
 165 170 175

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro Ala Ala
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Ala Asn Val Arg Lys Pro Gly Gly Ser Gly Leu Leu Ala Ser Pro Ala
 195 200 205

Ala Ala Pro Ser Pro Ser Ser Ser Ser Val Ser Ser Ser Ser Ala Thr
 210 215 220

Ala Pro Ser Ser Val Val Ala Ala Thr Ser Gly Gly Gly Arg Pro Gly
 225 230 235 240

Leu Gly Arg Gly Arg Asn Ser Asn Lys Gly Leu Pro Gln Ser Thr Ile
 245 250 255

Ser Phe Asp Gly Ile Tyr Ala Asn Met Arg Met Val His Ile Leu Thr
 260 265 270

Ser Val Val Gly Ser Lys Cys Glu Val Gln Val Lys Asn Gly Gly Ile
 275 280 285

Tyr Glu Gly Val Phe Lys Thr Tyr Ser Pro Lys Cys Asp Leu Val Leu
 290 295 300

Asp Ala Ala His Glu Lys Ser Thr Glu Ser Ser Ser Gly Pro Lys Arg
 305 310 315 320

Glu Glu Ile Met Glu Ser Ile Leu Phe Lys Cys Ser Asp Phe Val Val
 325 330 335

Val Gln Phe Lys Asp Met Asp Ser Ser Tyr Ala Lys Arg Asp Ala Phe
 340 345 350

Thr Asp Ser Ala Ile Ser Ala Lys Val Asn Gly Glu His Lys Glu Lys
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 Asp Leu Glu Pro Trp Asp Ala Gly Glu Leu Thr Ala Asn Glu Glu Leu
 370 375 380
 Glu Ala Leu Glu Asn Asp Val Ser Asn Gly Trp Asp Pro Asn Asp Met
 385 390 395 400
 Phe Arg Tyr Asn Glu Glu Asn Tyr Gly Val Val Ser Thr Tyr Asp Ser
 405 410 415
 Ser Leu Ser Ser Tyr Thr Val Pro Leu Glu Arg Asp Asn Ser Glu Glu
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 435 440 445
 Ser Ser Ala Gln Tyr Lys Ala Arg Val Ala Leu Glu Asn Asp Asp Arg
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 Ser Glu Glu Glu Lys Tyr Thr Ala Val Gln Arg Asn Ser Ser Glu Arg
 465 470 475 480
 Glu Gly His Ser Ile Asn Thr Arg Glu Asn Lys Tyr Ile Pro Pro Gly
 485 490 495
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 Pro Arg Met Gly Gln Pro Gly Ser Gly Ser Met Pro Ser Arg Ser Thr
 515 520 525
 Ser His Thr Ser Asp Phe Asn Pro Asn Ser Gly Ser Asp Gln Arg Val
 530 535 540
 Val Asn Gly Gly Val Pro Trp Pro Ser Pro Cys Pro Ser Pro Ser Ser
 545 550 555 560
 Arg Pro Pro Ser Arg Tyr Gln Ser Gly Pro Asn Ser Leu Pro Pro Arg
 565 570 575
 Ala Ala Thr Pro Thr Arg Pro Pro Ser Arg Pro Pro Ser Arg Pro Ser
 580 585 590
 Arg Pro Pro Ser His Pro Ser Ala His Gly Ser Pro Ala Pro Val Ser
 595 600 605
 Thr Met Pro Lys Arg Met Ser Ser Glu Gly Pro Pro Arg Met Ser Pro
 610 615 620
 Lys Ala Gln Arg His Pro Arg Asn His Arg Val Ser Ala Gly Arg Gly
 625 630 635 640
 Ser Ile Ser Ser Gly Leu Glu Phe Val Ser His Asn Pro Pro Ser Glu
 645 650 655

Ala Ala Thr Pro Pro Val Ala Arg Thr Ser Pro Ser Gly Gly Thr Trp
660 665 670
Ser Ser Val Val Ser Gly Val Pro Arg Leu Ser Pro Lys Thr His Arg
675 680 685
Pro Arg Ser Pro Arg Gln Asn Ser Ile Gly Asn Thr Pro Ser Gly Pro
690 695 700
Val Leu Ala Ser Pro Gln Ala Gly Ile Ile Pro Thr Glu Ala Val Ala
705 710 715 720
Met Pro Ile Pro Ala Ala Ser Pro Thr Pro Ala Ser Pro Ala Ser Asn
725 730 735
Arg Ala Val Thr Pro Ser Ser Glu Ala Lys Asp Ser Arg Leu Gln Asp
740 745 750
Gln Arg Gln Asn Ser Pro Ala Gly Asn Lys Glu Asn Ile Lys Pro Asn
755 760 765
Glu Thr Ser Pro Ser Phe Ser Lys Ala Glu Asn Lys Gly Ile Ser Pro
770 775 780
Val Val Ser Glu His Arg Lys Gln Ile Asp Asp Leu Lys Lys Phe Lys
785 790 795 800
Asn Asp Phe Arg Leu Gln Pro Ser Ser Thr Ser Glu Ser Met Asp Gln
805 810 815
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820 825 830
Asp Lys Ile Glu Pro Ser Ala Lys Asp Ser Phe Ile Glu Asn Ser Ser
835 840 845
Ser Asn Cys Thr Ser Gly Ser Ser Lys Pro Asn Ser Pro Ser Ile Ser
850 855 860
Pro Ser Ile Leu Ser Asn Thr Glu His Lys Arg Gly Pro Glu Val Thr
865 870 875 880
Ser Gln Gly Val Gln Thr Ser Ser Pro Ala Cys Lys Gln Glu Lys Asp
885 890 895
Asp Lys Glu Glu Lys Lys Asp Ala Ala Glu Gln Val Arg Lys Ser Thr
900 905 910
Leu Asn Pro Asn Ala Lys Glu Phe Asn Pro Arg Ser Phe Ser Gln Pro
915 920 925
Lys Pro Ser Thr Thr Pro Thr Ser Pro Arg Pro Gln Ala Gln Pro Ser
930 935 940
Pro Ser Met Val Gly His Gln Gln Pro Thr Pro Val Tyr Thr Gln Pro
945 950 955 960

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Ala	Lys	Thr	Tyr	Arg	Ala	Val	Pro	Asn	Met	Pro	Gln	Gln	Arg	Gln	Asp	995	1000	1005
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Ala	Tyr	Ser	Pro	Gln	Gln	Phe	Pro	Asn	Gln	Pro	Leu	Val	Gln	His		1040	1045	1050
Val	Pro	His	Tyr	Gln	Ser	Gln	His	Pro	His	Val	Tyr	Ser	Pro	Val		1055	1060	1065
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Pro	Gly	Leu	Val	Ser	Ser	Ser	Ala	Thr	Gln	Tyr	Gly	Ala	His	Glu		1085	1090	1095
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Glu	Thr	Ser	Pro	Ser	Phe	Tyr	Phe	Ala	Ile	Ser	Thr	Gly	Ser	Leu		1115	1120	1125
Ala	Gln	Gln	Tyr	Ala	His	Pro	Asn	Ala	Thr	Leu	His	Pro	His	Thr		1130	1135	1140
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Gln	Ser	Ala	Ile	Tyr	His	Ala	Gly	Leu	Ala	Pro	Thr	Pro	Pro	Ser		1190	1195	1200
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Ala	Ala	Gln	Gln	Thr	Val	Phe	Thr	Ile	His	Pro	Ser	His	Val	Gln		1220	1225	1230
Pro	Ala	Tyr	Thr	Asn	Pro	Pro	His	Met	Ala	His	Val	Pro	Gln	Ala		1235	1240	1245

His Val Gln Ser Gly Met Val Pro Ser His Pro Thr Ala His Ala
 1250 1255 1260

Pro Met Met Leu Met Thr Thr Gln Pro Pro Gly Gly Pro Gln Ala
 1265 1270 1275

Ala Leu Ala Gln Ser Ala Leu Gln Pro Ile Pro Val Ser Thr Thr
 1280 1285 1290

Ala His Phe Pro Tyr Met Thr His Pro Ser Val Gln Ala His His
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Gln Gln Gln Leu
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<210> 20

<211> 4481

<212> DNA

<213> Homo sapiens

<400> 20

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